MISSISSIPPI STATE UNIVERSITY™
UNDERGRADUATE RESEARCH AND CREATIVE DISCOVERY

General Onboarding for Undergraduate Researchers

Set Tone & Expectations

1. Define and discuss expectations & goals with the Research Learning Agreement
2. Create welcoming environment
    a. Assess their skills and interests to tailor tasks to align project needs and their growth opportunities
    b. Introduce them to team/ lab group/ invite to regular research meeting
    c. Encourage them to ask questions and to seek help when needed

Emphasize ethics and professionalism

3. Importance of research ethics, data integrity, and academic honesty
4. Discuss confidentiality and intellectual property if applicable
5. Documenting activities and use of lab notebook

Provide Resources & Access

6. Access to tools, software, equipment, facilities
7. Share relevant important readings, protocols, datasets, etc.

Provide Training

8. General research training module (see this page). This can be done early.
9. General safety/conduct expectations (PPE, CITI Training, IRB, IACUC, IBC)
10. Common lab equipment, Lab protocols, software, methodologies.
11. Other specific training (e.g. interpersonal for meeting clients, or doing home visits, etc.)

Additional Considerations

12. Shadow opportunity
13. Provide detailed lists for tasks and responsibilities
14. Develop a handbook for consistent training and maintenance of regular protocols
15. Time sheet due dates, supervisor
16. Discuss time management & communication preferences

Maintenance

17. Regular check-ins to review progress, address challenges, and offer feedback
18. Publication and manuscript expectations - citation, authorship, technical writing
19. Professional organizations & conference expectations /URS
20. Refresher and retraining may be needed
21. Encourage growth and reflection (link to bulldog experience questionnaire) & apply for recognition

Helpful articles:

- https://www.uab.edu/ehs/training/undergrad-lab-safety
    - Examples of safety training modules required of undergraduates in laboratory environments
- https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1011994
    - Hickman, K., & Zahn, G. (2024). Ten simple rules for leading a successful undergraduate-intensive research lab. *PLoS computational biology*, *20*(4), e1011994. https://doi.org/10.1371/journal.pcbi.1011994
    - More mentoring information: https://www.urcd.msstate.edu/faculty/mentor-resources